

Copies of the amended claims 1, 8 and 15 with changes shown explicitly are attached and labeled accordingly.

REMARKS

Claims 1-14 stand rejected under 35 USC §112, second paragraph, as being indefinite in the use of the phrase "range finding means" without a specified function following. Claim 1 has been amended to include the function of the range finding means. With respect to claims 1 and 8, the phrase "said laser range finding means" is viewed as not positively recited. Claims 1 and 8 are both hereby amended to conform this phrase to terminology used elsewhere in the claim, thus obviating the need to positively recite it. Finally, method claims 17, 18 and 20 are viewed as lacking method steps. Applicant's attorney disagrees with the Office Action's characterization of these claims as indefinite and, furthermore, believes that the Office Action intended to refer to claims 16-18 rather than claims 17, 18 and 20. Nonetheless, claims 16-18 have been cancelled and new claims 21-24 have been added to overcome this perceived indefiniteness.

Claims 1-20 stand rejected under 35 USC §103(a) as unpatentable over Coe et al in view of Whitehead. Claims 1 and 8 have been amended as stated above. Claim 15 has also been amended. This rejection is respectfully traversed in view of the amendments to claim 15.

As is implicit in the Office Action listing of those elements taught by the prior art, neither Coe et al nor Whitehead teaches or suggests a hand held probe having means for engaging the side of a tire. It is one thing to build a tire tread depth measuring device for use in a laboratory with the tire off the wheel of the vehicle, and quite another to make a simple but accurate handheld probe that can be used to check tire tread depth quickly while the tire is still on the car.

This feature, in combination with the others, provides stability for such a measurement, a fact that is stressed in the specification:

In the Summary:

"An advantage of the present device is its simplicity of use. The bracket and arcuate housing make it easy to position against the tire so that it is stable."

In the Detailed Description of Preferred Embodiments:

"Near proximal end 22 is a bracket 50 for engaging the side of tire 12 for stability and to help in aligning probe 10, as will be described more fully below."

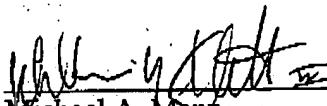
"During operation, probe 10 is held against tire 12 with the plane of window 60 parallel to the tangent of tire 12 and the two edges 52, 54 of housing 20 against the surface of tire 12 and bracket 50 against the side of tire 12. This "three-point" contact allows probe 10 to have a complete view of tread 14's cross section and be stable for the measurement. Stability is important to preserve the integrity of the line of reference to the tire defined by the movement of the range finder 70."

While Whitehead teaches a probe that engages the rolling surface of the tire, he does not teach a probe that engages the side of the tire. Coe et al studiously avoids contact with the tire, stressing the "non-contact" aspects of his machine repeatedly. Therefore, there is no teaching, suggestion or motivation in the prior art to prove a tire-side engaging means in combination with a tire tread depth measuring device.

In view of the foregoing amendments and remarks, Applicant believes that the present application is in condition for allowance and requests reconsideration. If the examiner disagrees, he is requested to call the attorney for Applicant at the telephone number provided below.

Respectfully submitted,

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COPY OF CLAIMS 1, 8, and 15 WITH CHANGES SHOWN EXPLICITLY

-- 1. (Amended) A probe for measuring tread depth, said probe comprising:
a housing having a window formed therein, said housing having a proximal end and a distal end;
range finding means for finding distance, said range finding means being carried within said housing and oriented so that said range [finder] finding means directs a beam of light through said window;
means for moving said range finding means parallel to said window;
means carried by said housing for gripping said housing;
tire-engaging means carried by said proximal end for engaging a side of a tire; and
means carried by said housing and in operational connection with said range finding means and said moving means for sending distance data from said [laser] range finding means as said [laser] range finding means is moved parallel to said window.—

-- 8. (Amended) A probe for measuring tread depth, said probe comprising:
a housing having a window formed therein, said housing having a proximal end and a distal end;
range finding means for finding distance, said range finding means being carried within said housing and oriented so that said range [finder] finding means directs a beam of light through said window;
means for moving said range finding means parallel to said window;
a handle carried by said proximal end of said housing; and

means carried by said housing and in operational connection with said range finding means and said moving means for sending distance data from said [laser] range finding means as said [laser] range finding means is moved parallel to said window; and communications port means carried by said handle for communicating distance data to a computer.—

15. (Amended) A method for measuring the tread profile of a tire, said method comprising the steps of:

providing a handheld probe having means for engaging a rolling face and a side of a tire;
placing a handheld probe in engagement with said rolling face and said side of a tire;
scanning [the] said rolling face [of a tire] with said probe to determine the tread profile;
communicating said tread profile to a computer having a display; and
plotting the tread profile on said display[;]—